GIGASPACES

SMARTDIH

Powering Superb Omnichannel
Retail Experiences with SmartDIH

Consumers demand fast, accurate responses when searching for items, right through payment and tracking their orders. If a website and mobile app are not aligned, and do not provide synchronized, up to date information, customers will have a disjointed experience that leads to churn and lost sales. Moreover, shoppers expect immediate responses and a hassle free enjoyable shopping experience.

Providing customers with the information they need instantaneously requires integration from a number of systems, including inventory, location, shipping and payments among others. Data from numerous systems must be available in real-time to mobile and desktop apps, to ensure a superior and productive customer journey.

In highly competitive environments such as retail, where consumers make split second purchasing decisions, achieving a seamless instantaneous online experience can face several challenges:

Integrating disparate data
Retailers obtain information from numerous sources - CRM, inventory, payment, and customer-facing systems such as price checkers, and self-checkout Point-of-Sales (POS) terminals, among many others, often combining online sources with brick and mortar systems. Integrating these numerous varied data sources, including edge computing, entails complex data operations.

Peaks
When demand surges on peak days such as Black Friday, retailers must ensure that their systems can scale when demand grows exponentially, then contract to save compute costs.

Omnichannel
To remain competitive, retailers must offer excellent omnichannel experiences, that delight the shopper across mobile, web and in-store interactions.

Legacy systems
Many retailers have a number of legacy systems that may not play friendly with cloud native applications, and performance can take a hit when response time is limited by the least efficient link in the chain.
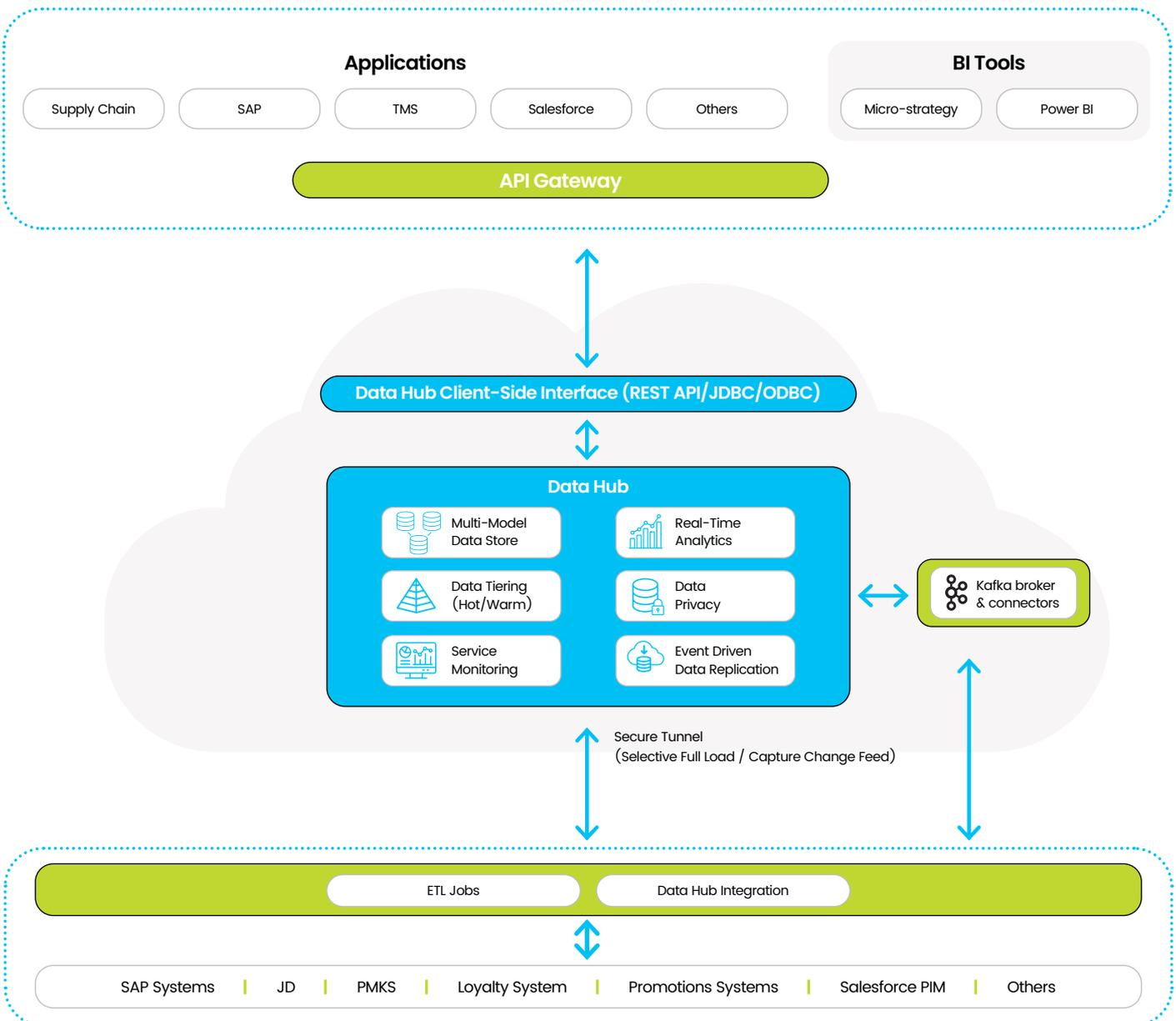
Fraud
In addition to in-store theft, retailers are subject to constant threats of hackers who steal customer data and otherwise attempt to steal online.

Ensuring Superb Customer Journeys
with Smart DIH

Smart DIH, an operational data hub, is designed to address the challenges many retail organizations face in order to achieve a cohesive, responsive and data-driven online shopping presence.

Smart DIH consolidates data from multiple heterogeneous systems, including SAP, Oracle, other ERP systems, inventory management systems, and homegrown solutions, into a highly performant unified data layer that exposes data services in real time to digital and online apps. By decoupling apps from their systems of record, Smart DIH significantly reduces API calls to these systems. Not only does this save costs, it also ensures extremely high performance and ultra-fast response times of digital apps, since they are no longer dependent on sluggish legacy systems.

By exposing data microservices in real-time to digital apps and ensuring data consistency across all digital channels, Smart DIH ensures a superb omnichannel customer experience. Smart DIH can be installed on premises, in the cloud or in hybrid and multi cloud environments.

Applications

| Supply Chain | SAP | TMS | Salesforce | Others |

BI Tools

| Micro-strategy | Power BI |

API Gateway

Data Hub Client-Side Interface (REST API/JDBC/ODBC)

Data Hub

- Multi-Model Data Store
- Real-Time Analytics
- Data Tiering (Hot/Warm)
- Data Privacy
- Service Monitoring
- Event Driven Data Replication

Kafka broker & connectors

Secure Tunnel
(Selective Full Load / Capture Change Feed)

| ETL Jobs | Data Hub Integration |

| SAP Systems | JD | PMKS | Loyalty System | Promotions Systems | Salesforce PIM | Others |

Benefits

Smart DIH enables retailers to gain a competitive edge with a data-centric approach:

- Unified, real-time data ensures customers can see the most up to date merchandise and promotions in real-time, personalized to their buying preferences, and track their orders from any device

- Employees can obtain a true picture of sales, inventory, customers and more, enabling more accurate analysis and data-driven decisions, no matter how many systems, sites and edge devices are involved

- Quickly detect fraudulent activities based on unified, real-time data

- Ensure that the apps and sites do not go down due to Smart DIHs high availability and resilience

- Offer location-based promotions (based on location data that is collated with inventory and pricing data) that:
  - Positively impact sales
  - Can optimize the digital supply chain

Retailers who are looking for a competitive edge can streamline and speed up app development to release new, competitive offers in days with low code microservices. This ultra-fast development and release of new services, combined with Smart DIHs unified data layer that unites so many disparate data sources, turbocharge a retailer's ability to offer a superb customer experience.

How Smart DIH helped a major US Retailer

A leading US retailer, with over 1,800 storefronts and a massive online presence recently spun off from their parent company. They used the opportunity to redesign their data architecture, and escape from their legacy, siloed architecture. They deployed Smart DIH on an Azure cloud, enabling them to conduct a gradual migration to the cloud while maintaining their current operations.

The retailer now has a unified view of their business entities and can offer personalized omnichannel experiences with real-time data, especially during periods of peak demand. The retailer has onboarded a user-centric approach for app development, using consolidated, real-time data to be able to quickly offer remarkable apps that delight their customers.

About GigaSpaces

GigaSpaces is a global pioneer in in-memory computing, building one of the market's first Digital Integration Hubs - an out-of-the-box solution that simplifies organizations' digital transformation, enabling them to develop and launch digital services at a rapid pace. The company's flagship product is Smart DIH - an operational data hub that powers real-time modern applications. It unleashes the power of customers' data by transforming data silos into assets, turning organizations into digital-first, data-driven enterprises.

GigaSpaces serves customers such as American Airlines, Morgan Stanley, Bank of America, CSX, Goldman Sachs, Societe Generale, Credit Agricole, Avanza Bank, Avaya, CLSA, and UBS. GigaSpaces is an IBM Gold Partner and has business partnerships with Boomi, Capgemini, and Cognizant.

For more information visit www.gigaspaces.com

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